1 **APPLICATIONS**
2 .Control
3 .Counting on an object, areas having alternating physical properties (e.g., counting lines on grid, teeth on gear, windings on coil)
4 .Betting on the outcome of an event; Totalizers
5 .Game or sport
6 .Counting animate or inanimate entities
7 ..Coins
8 ..Flat articles (e.g., sheet, bill, ticket)
9 ..Vehicles
10 ..Field of view contains plural entities or entities scanned plural times (e.g., microscopic particles)
11 ...Including particle size determination variations
12 ...Counting by detecting electrical impedance variations
13 .Registering counts for different categories (e.g., accounting)
14 ..Where the different categories represent monetary amounts (e.g., wages, charges)
15 .Counting based on number of times machine or apparatus operates
16 .Determining machine or apparatus operating time or monitoring machine, apparatus or operation
17 .Position determining
18 ..Of flat flexible strip (e.g., tape)
19 .Measuring or testing
20 ..Time combined with measurement of another parameter
21 ..Fluid flow
22 ..Weight
23 ..Acceleration
24 ..Dimension
24.1 ...Distance and Powered Vehicle (e.g., odometer)
24.2 ...Distance and Human Activity (e.g., pedometer, nonpowered golf carts)
25 ..Temperature
26 .Including memory

27 **SYSTEMS**
28 .Identifying or correcting improper counter operation (e.g., error checking, monitoring; preventing or correcting improper counter operation)
29 ..Testing or calibrating the counter
30 ..Preventing an inaccurate count as a result of an external condition
31 ...Automatic preset
32 ...Power failure
33 .Using particular code or particular counting sequence
34 ..Minimum change code (e.g., Gray code)
35 ..Excess three code
36 ..Biquinary code
37 .Sequential readout of plural counters or sequential sampling of inputs to a counter
38 .Plug in counter
39 .Comparing counts
40 .Nonsignificant zero elimination
41 .Complementing a count
42 .Converting input or output signal from or to an analogue signal
43 .Having phase shift
44 .Counter controlled counter
45 .Including reversible counter
46 .Including ring counter
47 .Pulse multiplication or division
48 ..Multiplication or division by a fraction
49 .Counter includes circuit for performing an arithmetic function
50 .Compensation for excess or shortage of pulses
51 .Including structure for detecting or indicating overflow condition
52 .With programmable counter (i.e., with variable base)
53 .With photoelectric sensor
54 .Using shift register
55 .Particular input circuit
56 .Particular output circuit

57 **CHARGE TRANSFER DEVICE (E.G., ANALOGUE SHIFT REGISTER, CCD, BUCKET BRIGADE DEVICE)**
58 .Compensating for or preventing signal charge deterioration
59 .With feedback
60 .Particular input or output means
61 .Direction and/or path flow control (e.g., by clocking or biasing, by charge splitting)
62 ..In charge-coupled device
63 .Charge-coupled device
64 **SHIFT REGISTER**
65 .Using electromechanical relays
66 .Asynchronous
67 .Multirank (i.e., rows of storage units form a shift register)
68 .Compensating for or preventing signal deterioration
69 .Shift direction control
70 .Particular input circuit
71 ..Pulse shaping
72 ..With feedback
73 ..Including logic circuit
74 ...Field-effect transistor
75 .Particular output circuit
76 ..Sequential output (e.g., tapped delay line)
77 .Particular transfer means
78 ..Phase clocking or synchronizing
79 ...Field-effect transistor
80 ..Parallel clocking
81 ..Logic circuit
82 **ELECTROMECHANICAL COUNTER**
83 .Counting or dividing chains using relays
84 .Programmable (i.e., with variable base)
85 .Reversible
86 .Particular input means
87 .Particular output means
88 .With resetting
89 .Rotary magnet
90 .Stepping switch
91 .Clutch or escapement
92 .Pawl and rachet
93 **WITH SUPERCONDUCTIVE ELEMENT**
94 **COUNTING OR DIVIDING IN INCREMENTAL STEPS (I.E., STAIRCASE COUNTER)**
95 .Charge storage (e.g., capacitor without polarization hysteresis)
96 ..Using auxiliary pulse generator triggered by incoming pulses
97 .Hysteresis storage (e.g., counters using saturable magnetic core elements)
98 .DEVICES HAVING MORE THAN TWO STABLE STATES
99 .Beam type tube (e.g., magnetron, cathode-ray tube)
100 .Multi-cathode gas discharge tubes
101 **USING BISTABLE MAGNETIC CORES OR FERROELECTRIC CAPACITORS**
102 **USING BISTABLE ELECTRO-OPTICAL DEVICES**
103 **COUNTING OR DIVIDING CHAINS USING GAS-FILLED TUBES**
104 **PHASED CLOCKING**
105 .Field-effect transistor
106 **PARTICULAR PARALLEL GATING OR CLOCK SIGNAL**
107 **STARTING, STOPPING, PRESETTING OR RESETTING THE COUNTER**
108 .Counter chains with a radix or base other than the number two raised to an integral power
109 ..Decade
110 ..Programmable (e.g., with mechanical or electromechanical switch means for selecting the count
111 **PARTICULAR INPUT CIRCUITS FOR COUNTER**
112 **INDICATING MEANS**
113 .Using glow discharge lamps
114 **PARTICULAR OUTPUT CIRCUITS FOR COUNTER**
115 **PARTICULAR TRANSFER MEANS (E.G., MASTER-SLAVE)**
116 .Including logic circuit
117 ..Field-effect device (e.g., JFET, IGFET, MNOS)
118 **PULSE COUNTING OR DIVIDING CHAINS**
119 .Using bistable regenerative trigger circuits
120 ..Using only semiconductors having at least three electrodes
121 ...Field-effect device (e.g., JFET, IGFET, MNOS)
122 ...Ring counter
123 ...Reversible counter
124 ..Ring counter
125 ..Reversible counter

126 .Ring or reversible counter
127 .Using bistable semiconductors having at least three electrodes or analogous complementary transistor circuits (e.g., avalanche transistor, SCR's)
128 .Using bistable semiconductors having only two electrodes (e.g., tunnel diode, multilayer diode)
129 **PULSES CONTINUOUSLY CIRCULATED IN A CLOSED LOOP**
130 **MISCELLANEOUS**

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